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ABSTRACT

The introduction of telecommunications hardware and systems for educational purposes in Alaska has been rapid and dramatic, but has not adequately addressed the needs of rural Alaskans. The policy-making process for the delivery of educational systems has emphasized technical questions, the breadth of dissemination of programs, costs and benefits, and the choice available to consumers. While such policy approaches are likely to increase access to educational programs, they operate within a framework of the status quo and do not increase the control of the population over the technology or the content of the programs. Neither do these policies challenge the applicability to a rural Alaskan setting of programming based on the culture and values of white, middle-class America. Indeed, experience indicates that programs produced in and for the residents of the lower 48 states cannot adequately address the needs, capacities, experiences, and learning strategies of rural Alaskan residents without major modifications. If educational programming is to be based on community needs, rather than on the technological potential for dissemination, consumers must have adequate information about the system and provide input into the processes of prioritizing, producing, and disseminating educational programs. A final concern for policy making, that of the potential for community destabilization inherent in the introduction of new technologies, demands that policies reflect the purview of both the clientele and the state. (HB)

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# POLICY IMPLICATIONS AND CONSTRAINTS OF EDUCATIONAL TELECOMMUNICATIONS IN A SUBARCTIC REGION

by
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# POLICY IMPLICATIONS AND CONSTRAINTS OF EDUCATIONAL TELECOMMUNICATIONS IN A SUBARCTIC REGION

Michael P. Metty[I]

The introduction of telecommunications hardware and systems for educational purposes has been rapid and dramatic in Alaska. The past several years has seen two-way audio conferencing, satellite television transmission, interactive computing and other even more esoteric devices and approaches appear in rural villages where physical access is limited and a functional telephone system was a new experience. These technological elements are evidence of the massive change that confronts the rural Alaskan.

Change is hardly new for Alaska - especially for rural Alaskans. Rural Alaska is not very well understood as it is often perceived as a seamless whole when it is in fact a mosaic of cultures, languages, histories, lifestyles and viewpoints. It is important to remember that even one region can indeed be extremely diverse in its needs, concerns and attitudes.

This paper evolves from experience in one area of rural Alaska - a subarctic region inhabited for a very long period of time. There are many studies that have catalogued the nature of this region in significant detail with much of the literature focused on the harshness of physical, social and economic conditions.

The environmental stresses of this subarctic region have been augmented in recent years by changes that have dissolved many of the individual, familial and communal systems that traditionally supported the growth and survival of the Eskimo people and their culture. These changes have included a shift in felt responsibility from individuals and the community to the public sector; dramatic alterations in size of families, the style of housing and to means of access to new knowledge, skills and behaviors; and the advent of televised programming entering one's home.

I want to make explicit, for the purposes of our discussion, the perspective on policy taken in this paper. The viewpoint expressed has been most clearly articulated by Johnson and Clark (1982) who note that policies are "social action programs through which groups of people seek to resolve questions." They note that the policy process "invariably deals with numerous overlapping problems" and conclude, as do most realists, that a policy approach is often best used in messy, political, ill-structured situations.

Policy making is a way in which people seek to invent, control and implement resolutions to messes and we should not pretend or act as if it were a clearly defined, unambiguous, authoritative mechanism.

My experience tells me that education is a messy business. Telecommunication is also a messy business. Combined they provide a situation that offers a real opportunity for a policy-oriented approach to decision making.

We can say that policy making is an interactive process; one (again according to Johnson and Clark, 1982) where "messes are not solved but resolved sufficiently to be temporarily removed from the agenda making room for others that are more pressing." This approach, essentially one of redesign and modification, makes for a way of behavior in which thinking and doing become one.

Policy making in any complex, dynamic system involves looking backward

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(or gaining a retrospective view of experience); looking forward (or seeking a prospective view or alternative futures); and looking inward (which is an interactionist attitude). This, of course, allows us to recognize and seek multiple objectives through thoughtful, appropriate, targeted interventions.

Any policy making strategy can be identified as either an intellectual cogitation approach or a social interaction approach. The first, most closely identified with "think tanks" and military organizations, is a "thinking through" method. Particular methodologies may be focused on planning, budgeting, benefit/cost analysis, project evaluation, systems models or professional social inquiry. The second strategy (the social interactionist) is an "acting out" method where through political processes, bargaining/negotiation, marketing or pricing techniques a policy is arrived at.

We all recognize these various approaches are used in Alaska but are often unclear that they are in fact ways of setting policy.

Acknowledging the messiness of the educational telecommunications scene in Alaska we can, retrospectively, acknowledge that our policy strategy has been a mixture of cogitation and acting out strategies.

The "thinking through" approach has been characterized by the several studies from the Department of Education and the University. The "acting out" approach has been characterized by the rapid installations of hardware propelled by the legislature. The difficulty in our particular approach has been the rather unplanned mix of the two strategies. The mix has allowed us to be non-rigorous in both approaches and consequently our policy base is especially weak.

This seems to be a major, if unplanned, consequence of the strategy used. In retrospect a choice of either policy approach or a more logical integration of the two would have been preferable to what occurred.

Let me categorize concerns about deficiencies of educational delivery at the postsecondary level into 3 groups so that we might better understand how policy making can be effective. In general, the issues can be understood in terms of:

1) inequities in the distribution of opportunities and results - more often and inaccurately labeled access,
2) inefficiency or ineffectiveness within schools and the educational system,
3) mismatch between what schools are producing and what people need or want.

These categories, familiar to any educational critic or policy maker, form the background against which our efforts will be viewed. To fail to address them is to ignore the weight of evidence.

Much light can be shed on our concerns if we briefly review the situation in other countries. Leslie and Jameson (1982) have pointed out that educational systems in developing areas share many problems familiar to us: rising costs, relatively poor access for rural people, low quality instruction, slow response in providing education relevant to employment and negative impacts on income distribution. Most developing areas have chosen to use media technology in some form or another in their modernization efforts (Young, Perraton, Jenkins and Dodds, 1980). They have focused in the three general areas of improvement of quality and relevance, reduction of unit costs and improving access.

This is not an indirect assertion that Alaska is a developing or less developed area. It is, however, an indication that the issues of inequity, ineffectiveness and mismatch are ones that concern policy makers in education and telecommunications everywhere. We must include them in our planning,

evaluation, and feedback activities.

Let me narrow the focus a bit and look at educational telecommunications in a subarctic area. I need to set the stage by acknowledging some assumptions.

1) "Television can play a very useful role in the community if its content is properly balanced with culturally relevant materials..." (Aaron, 1976).
2) "The styles and patterns of provision of education in rural areas have important consequences...for communities as a whole in terms of their viability economically, socially and culturally." (Whitfield, 1981).
3) "There is no discrete object that can be labeled rural education. What must be acknowledged is that there is no single theory, principle, concept or notion that is universally appropriate to education in a non-urban setting." (Darnell, 1981).
4) "Education is to do with power. People without education are at the mercy of those with it....Education is a means of gaining power and hence freedom." (Young, Perraton, Jenkins, Dodds, 1980).
5) "It is not power but the misuse of power that represents the potential communication problem." (Sconover, 1981).

Several documents are useful in the search to understand the policy impacting on rural educational telecommunications. Senate Concurrent Resolution #35 (1979) points to an orientation "of the degree to which Alaska's public education needs can be effectively met through improved use or availability of educational television." The feasibility study called for in SCR 35 (1980) adopts a simplified benefits approach and presents benefits to existing operations that include

> "improved availability and use of existing resources, more effective use of existing personnel, increased effectiveness of organizations, more immediate relay of information, cost savings, improved dissemination of existing information, improved opportunity for public participation, increased communication among regions and organizations, and increased professional contact and support for rural staff."

It continues on to note benefits for new operations including "services to new clients, new resources available, and new information and training opportunities available to specialized personnel."

The feasibility study also offers criteria for determining benefits. They include technical possibility or likelihood, desirability of service, provision and nature of cost benefits, and affordability to user. In this document, which was key to the development of instructional telecommunications, we find that instructional television is that which "is specifically made for classroom (or formal) study, offering a series of lessons in specific topics to specific learners." Decided emphasis is also placed on interactive telecommunications for education though specificity is lacking. A final comment about this seminal document involves the fact that

> "instructional television is viewed as an important learning resource for many students in the state, provided that: 1) programs are available when needed; 2) programs include public and commercial television program series or specials; 3) programs are locally relevant and timely and local educators are involved in their selection; and 4) teachers and instructors are familiar with and use ITV lesson planning skills."

Another document of importance is the Report to the Chancellor, CCREE, on Telecommunications Delivery (Haw, 1979) where it is noted that telecommunications "holds promise of wider dissemination of existing programs and more effective use of existing industrial resources." Furthermore "satellite based telecommunications have and are further proving to be an effective and economical method of delivery of any electronically transmitted information services."

In review of these documents we find a striking emphasis on

1) improving access to or availability of what already exists
2) reducing costs or improving cost relationships
3) better utilization (derivative of #1 and 2).

While this is not unusual in such settings it should alert us to the basic "status quo" implications. What is absent is any focus on "mismatch." This serious oversight almost locks us into a predetermined course. To repeat - the implied direction is "status quo."

The documents we have examined focus on "choice" (that is choosing to watch or not watch one channel or select from several channels) rather than "taking charge." This decision, in turn, forms much or most of the matrix of operations for telecommunications for rural Alaska.

Analytically speaking, expanding the availability of choice (more properly labeled selection in the telecommunications arena) does indeed promote access to what in fact already exists. It may, because of wider distribution, positively effect the cost per unit of usage.

We may conclude that a telecommunications strategy, whatever the delivery mode, will increase access to what exists if access means to view or not view, hear or not hear what is presented. The cost question, certainly more intricate, can be similarly reviewed.

In the cases with which I am most familiar; the University of Alaska Instructional Telecommunications Consortium, the REMOTE Project of Northwest Community College and the "Take Charge" project of Norton Sound Health Corporation/NWCC; we can say, unequivocally, that some people in this subarctic region did accomplish real access to something they did not have earlier. Specifically in academic year 1982, twenty-six people from 6 Bering Strait villages enrolled in college-level courses delivered by the UA telecommunications. At the same time and in the same villages twenty-six other people selected other college credit courses delivered in ways not using the telecommunications system. Of equal importance was the impact on informal (non-credit) learning of regional rural residents. Seventy-eight persons received educational or job counseling, six people questioned candidates for governor, three parents received information about their handicapped children, fifteen people were introduced to the concepts of resource management.

We at Northwest Community College have concluded from our first year's operational experience that the presence of a telecommunications signal in a rural Alaskan village clearly and obviously increases access. At the same time we have concluded that the question of access is too simple. Succinctly stated the policy question must be more clearly viewed as access for what purposes, to what information, by whom under which circumstances.

As Wedemeyer (1981) expresses it "a continuing danger in a technologically oriented society and culture is that technology becomes an end in itself (i.e., a sanction for doing something because you can do it, not because you ought to do it)."

I have been further sensitized to the issues implicit in this discussion by the Teen Health/Take Charge project mentioned earlier. In this case videotapes on topics identified through interviews and questionnaires with regional teenagers were made available to village teachers and organizations.

The episodes focus on smoking, drinking, drug use, nutrition, exercise and emotions. Young people from villages are trained to use the media to help develop self-responsibility behaviors with their peers. Several hundred young people have been exposed to this method and early results (Deaux, 1982) indicate some success in encouraging positive health behaviors.

Our conclusion from this experience is that active engagement of the learner as control agent is imperative for success. The technology for delivery is useful but that technology can either enhance or subvert (intentionally or unintentionally) the desirable educational outcomes.

Our viewpoint has become that the fundamental issue in a policy framework is control not choice. Central to this is the key element of power.

This control/power phenomenon has been forcefully addressed by Paulo Freire (1971) whose underlying belief is that education is a process of increasing one's understanding and ability to control the world rather than mastering a fixed parcel of subject matter. It is perceiving and doing. In fact, it is much like the "cogitating" and "acting out" approach to policy referred to earlier.

Continuing along with Freire (1971) we can see that in the telecommunications orthodoxy we practice there is the assumption that there is an organized body of knowledge that teachers already know and which students should or must master. Embedded in this assumption is the belief that the needs of the individual student will somehow correspond to what is available in the course, the textbook or the program.

Natural caution would urge us, in light of the above examination, to review the operational meaning of access in terms of control. It seems, from the standpoint of individual, that control can be kept by oneself, given up willingly to another, given up unwillingly to another (i.e., taken). If such an observation is accurate it is important that telecommunications policy and systems, as powerful instruments of the state, be sensitively imposed. Lack of sensitivity leads to continued erosion of the individual's power.

I want to move now to the issue of cultural homogenization and telecommunications policy. Without getting overly technical or overly detailed the question is to what extent is it desirable to expose or cause to be exposed different cultural groups to the same educational materials. Clearly there are good and positive reasons for common syllabi, texts, films and the like. Such value, often described as the "public interest" connotes a particular view of what is "good" or "best" for a society. That view is most often a composite of the views of the influential citizenry of the dominant culture and rarely reflects the full diversity of the society.

Given the multicultural or non-dominant culture nature of Northwestern Alaska it is particularly useful to ask if material transmitted by a publicly supported telecommunications system should not be highly diverse in nature and content. We operate, and properly so, as if information transmitted via telecommunications is powerful, immediate and useful. Should it in fact be true, we face value choices of sizable magnitude.

To come at this from a slightly different angle, criticisms of commercial television usually note that it is either unambitious or too uniform (Cass, 1981). These questions of value or worth and diversity might be equally applied to what is transmitted over telecommunications.

We must ask ourselves, especially in the case of instructional television, if material developed and produced for general audiences unlike those we are directly aimed at, is useful or harmful. As Johnson and Clark (1982) note "people can suffer as much from an ill-conceived program designed to help them as from a well-conceived program designed to exploit them."

Let me cite again my own experience. In the past 18 months I have "taught" three courses over the ITV/telecommunication system. All three were prepackaged materials developed at great expense by eminent production agencies. In instance 1 I merely "presided" over the course. That is, no changes or modifications were made and little more than regular follow-up occurred. In instance 2 I was more active by providing additional material and guidance. In instance 3 I ripped the guts out of the coursework and created an entirely different learning encounter. Only in the last case did I see a reasonable completion rate, some relationship between subject matter and student experience and much real opportunity to apply knowledge to the village situation.

I now contend that accelerating or adding to the established, generally credit-oriented, middle class or upwardly mobile, Lower 48 economy offerings does a disservice to the rural population of Western Alaska. This is not to argue that such materials should not be presented; it is to simply state that such material, if the only fare available, is to firmly fix a particular view of reality, a reality that exists for the producer, the urbanite and maybe the teacher. It probably does not exist for the rural resident/student.

As Curle (1973) says "Education, as it is mostly practiced, does not so much free men from ignorance, tradition and servility, as fetter them to the values and aspirations of a middle class which many of them are unlikely to join."

We are compelled to examine the work of the major producers of materials that we could use - the Open University; the Dallas, Miami, and Coast Community College Districts; the University of Maryland and Mid-America and all the others - for reasons of economy, timing and sheer need for volume. We must exercise extreme care, though, that we do not fill our time with only such materials and convey to our audience an unwitting message.

We have used, in the region in which I work, materials on ocean science, biology, alcoholism, sketching, psychology, earth science, writing and business. All of these are, or seem to be, of direct or indirect interest to regional residents. The single most important fact, though, is that they do not and probably cannot adequately address the needs, capacities, experiences and learning strategies of our residents without major modification. To not modify means that we insist that viewers adopt the vocabulary and orientation of the producers. This is de facto cultural homogenization.

The concept of relative deprivation is concerned with the fact that a group may consider themselves kept from the necessities of a good life as they see it exhibited in another group. This is not absolute deprivation as in the absence of income or health care. The case in our examination is a complex one.

Clearly the absence of appropriate, functional education would be absolute deprivation since education is a survival behavior. The absence of postsecondary education may be perceived as absolute or relative depending on the societal objectives of the national and state government and on the objectives of the local community. The absence of telecommunications will likely be viewed as both relative and absolute depending on the particular issue.

Therefore the issue for us is situation dependent and difficult to address in overall terms. My sense is that for Northwestern Alaska the absence of traditional postsecondary education is a relative deprivation of only modest significance or interest. This in itself should alert us to the impact our current ITV programming has.

In policy terms we face an interesting dilemma. If postsecondary education, as delivered by a telecommunications system, becomes a very high impact item (i.e., in great demand) then we create, in societal terms, an absolute deprivation. This is dependent, of course, on the premise that learning is a survival behavior. If we provide education of modest or negative worth or value we foster only relative deprivation and only in the case of a small number of people.

The data we have on our projects in western subarctic Alaska that can be brought to bear here is extremely limited. It is our sense that in the first 18 months of experience the pre-packaged material was used mostly by the few caucasians resident in villages. The regionally created and Alaskan material tended to draw mixed or predominantly Alaska Native audiences. This could be viewed as a question of priority development.

This issue of prioritization is well worth some thought. It is clear from the research (Young, Perraton, Jenkens, and Dodd, 1980; Neal, 1981; Kellogg Foundation, 1981) that local people must be involved in setting priorities if effective utilization is to occur. Simple in concept, this task has proved remarkably difficult to carry out in reality. Our experience has been that involvement in setting priorities by permanent rural Alaskans involves at least a six-month community organizing effort.

Of course it is not difficult to accomplish trivial involvement. The kind where a select group readily agrees to whatever has been proposed is pretty standard for service to village programs. The more significant kind of involvement - the kind where real choices are made - are rare. The reasons for this are not unusual - lead time needed, social and psychological distances among participants, implementation costs and different language experiences.

Our experience, limited as it is, points out that if useful prioritizations are to take place the following conditions are important. The participants must have: 1) sufficient information about the capacity of the system, the options available and the needs of their constituency, 2) marked influence within the provider structure and the constituency, 3) adequate resources to insure meaningful impact, 4) enough time to accomplish the process. The absence of these almost ensures a hardware-driven rather than a user-driven system.

The final concern in this policy orientation is one that is both ephemeral and summative - that of potential community destabilization. Clearly new technologies have been and will continue to be destabilizing. There is sufficient historical and other evidence to back up this assertion. What is not clear is whether the destabilization may or will result in positive or negative outcomes and from whose perspective the outcomes will be assessed.

Any introduction of technology is destabilizing. The policy situation could be viewed as a binary decision - to destabilize or not. This, of course, is pointless because technologies will be introduced planfully or "willy-nilly." Our policy mandate then becomes a question of locus of observation and control. Simply stated the directionality of response to destabilization is determined by the perspective adopted. Policy then has to reflect the purview of the clientele and the state not just the state.

Let us conclude by reiterating a preferred way of policy making - looking backward, looking forward, looking inward. This presentation has taken a look backward, from a somewhat biased perspective. The look forward and inward lies ahead.

An observation from John Schaffer (1982) of NANA sets a good context for policy development. Schaffer, in speaking to an assembly of villagers, said:

"...when we do get some (college) graduates with degrees we can't trust them to run our company for you because they don't think right. They don't think like an Inupiaq. They don't look at things like an Inupiaq." He goes on "We're educating our kids to sell us out and if they finish college they go away from us because they start thinking like white people." Schaffer concludes "What we have to do is find a way to teach those values to our kids again. No one can do it for us - we have to do this for ourselves."

Ralph Bohrson said:

"Rural education has always been a battle against the odds - too much to do, too few people and dollars, too little help and too much ridicule from the outside" (Bohrson, 1981).

Education for rural Alaskans using telecommunications might well be substituted in this comment and so might we summarize the past decade.

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